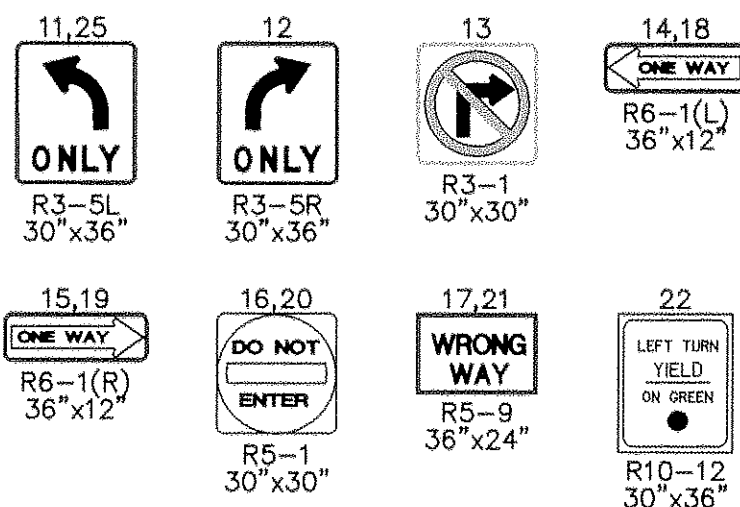


MD 146 IS ASSUMED TO RUN
IN A NORTH-SOUTH DIRECTION

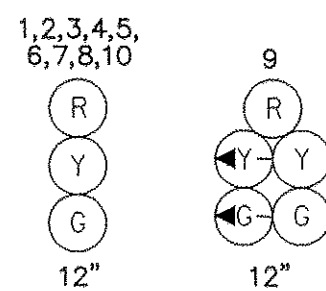
PHASING DIAGRAM

	1	2	3	4	5	6	7	8	9	10
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G
PHASE 2+5	R	R	G	G	R	R	R	R	G	G
5 CHANGE	R	R	G	G	R	R	R	R	G	G
PHASE 2+6	G	G	G	G	R	R	G	G	G	G
2+6 CHANGE	Y	Y	Y	Y	R	R	Y	Y	G	G
PHASE 4+5	R	R	R	R	G	G	R	R	G	G
4+5 CHANGE	R	R	R	R	Y	Y	R	R	G	G
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y

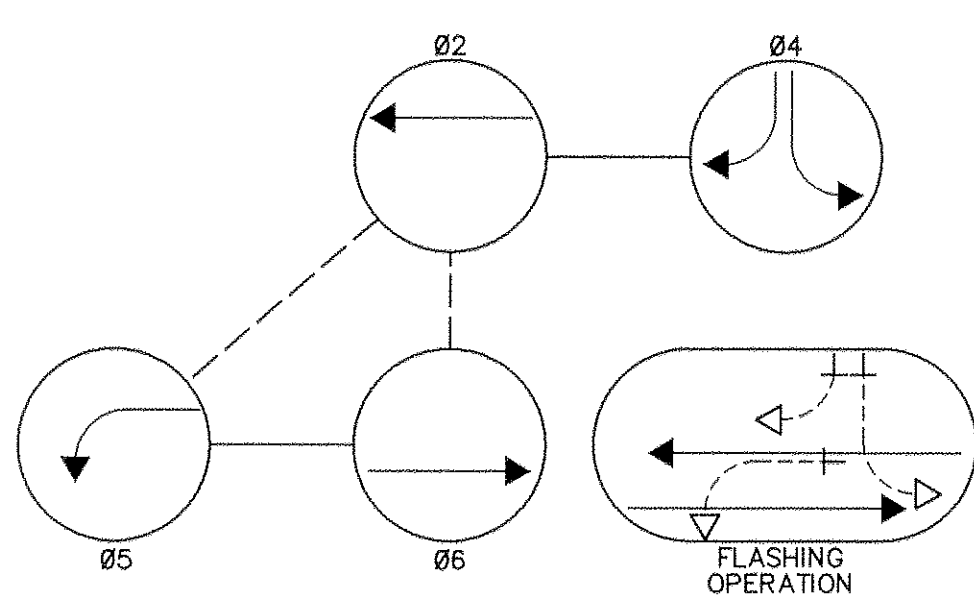
SIGNALS



SIGNALS



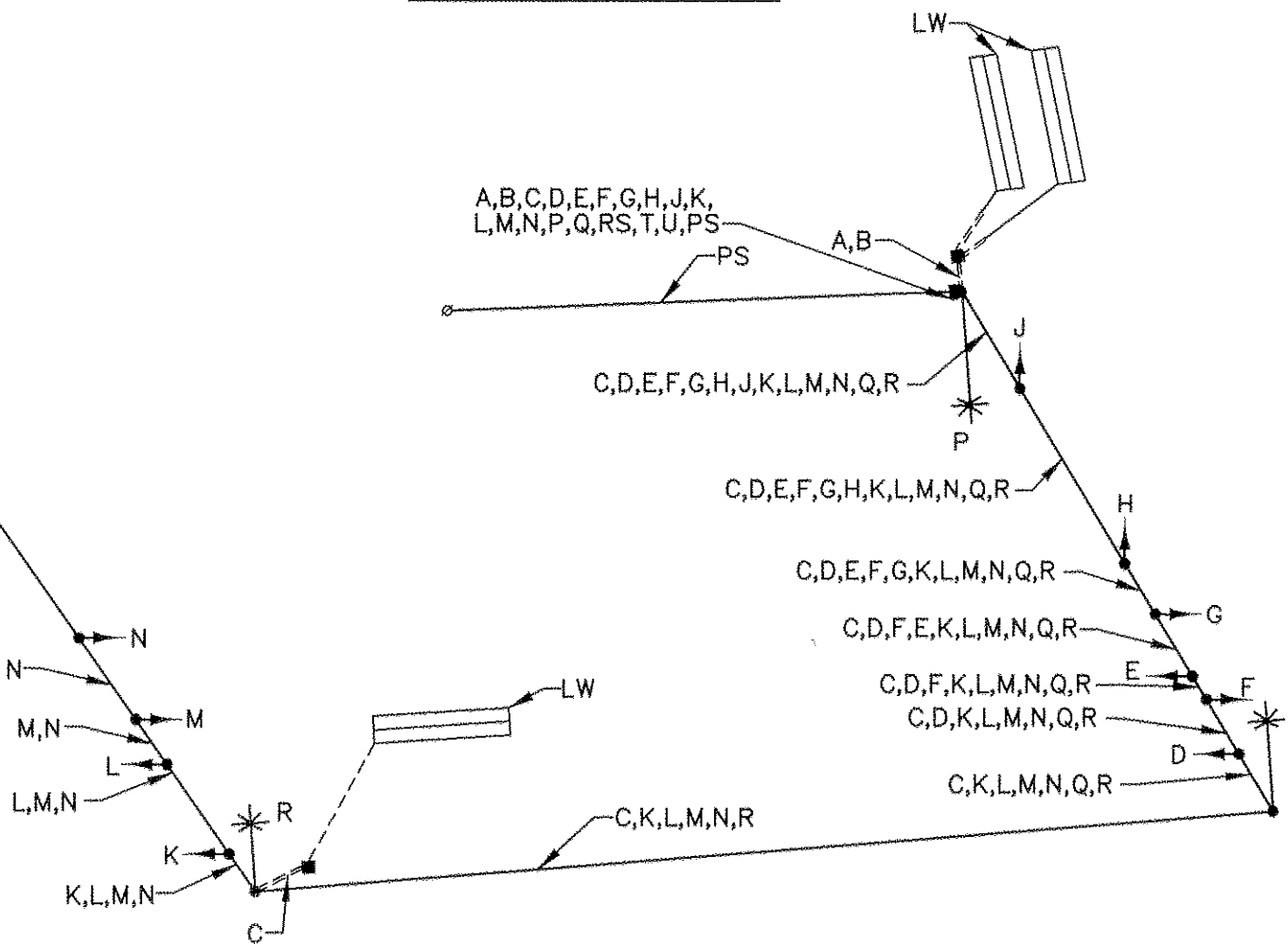
NEMA PHASING



PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY

WIRING DIAGRAM



WIRING LEGEND

- A - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- B - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- C - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- D - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- E - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- F - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- G - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- H - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- J - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- K - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- L - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- M - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- N - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- P - 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- Q - 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- R - 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- S - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- T - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- U - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- PS - PROPOSED ELECTRICAL SERVICE
- LW - LOOP WIRE

CONSTRUCTION DETAILS

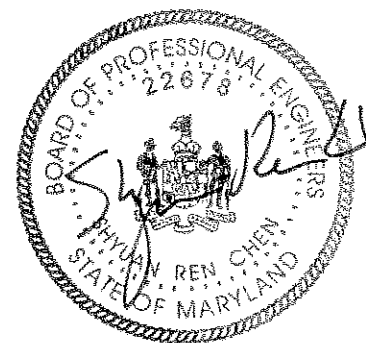
- INSTALL TEMPORARY WOOD POLE AND GUY WIRE AS REQUIRED. POLE MOUNTED CONTROLLER AND CABINET SIZE #5, 25' STREET LIGHTING ARM AND 250 WATT H.P.S. (CUTOFF) LUMINAIRE WITH PHOTOELECTRIC CELL, 3" P.V.C. RISER AND 3" WEATHERHEAD.
- INSTALL TEMPORARY WOOD POLE AND GUY WIRE AS REQUIRED. 15' STREET LIGHTING ARM AND 250 WATT H.P.S. (CUTOFF) LUMINAIRE WITH PHOTOELECTRIC CELL, 2" P.V.C. RISER AND 2" WEATHERHEAD.
- INSTALL TEMPORARY WOOD POLE AND GUY WIRE AS REQUIRED.
- INSTALL SPAN WIRE 3/8" IN DIAMETER, SIGNS, AND SIGNAL HEADS.
- INSTALL HANDHOLE.
- INSTALL 2" P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 1" LIQUID TIGHT NON-METALIC FLEXIBLE CONDUIT SLEEVE FOR DETECTOR WIRING.
- INSTALL 6'x30' LOOP DETECTOR ENCASED IN 1/4" FLEXIBLE TUBING (3-6-3) QUADRUPOLE TYPE.
- INSTALL 24" SOLID WHITE TEMPORARY PREFORMED PAVEMENT MARKING TAPE FOR STOP BAR.
- INSTALL TEMPORARY PREFORMED PAVEMENT MARKING ARROW.
- OVERHEAD POWER SUPPLY BY OTHERS.
- INSTALL GROUND MOUNTED SIGN.
- INSTALL SPAN WIRE 3/8" IN DIAMETER.

UTILITY LEGEND

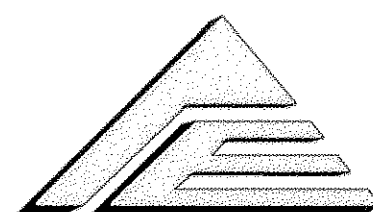
- G - GAS MAIN
- W - WATER MAIN
- S - SEWER MAIN
- SD - STORM DRAIN
- TV - CABLE TELEVISION
- E - ELECTRIC CABLES
- T - TELEPHONE CABLES
- A - AERIAL CABLES

NOTES:

- CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL PROPOSED GEOMETRICS PRIOR TO INSTALLING THE TRAFFIC SIGNAL EQUIPMENT.
- PAVEMENT MARKINGS ARE NOT TO BE INSTALLED UNTIL LOOP DETECTORS AND CONDUIT INSTALLATIONS ARE COMPLETE.
- SEE SHEET 4 FOR PROJECT DESCRIPTION AND EQUIPMENT LIST PROVIDE SUFFICIENT CABLE FOR ALL SIGNALS FOR RELOCATION FOR ALL OTHER PHASES.
- ALL UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION AND ARE NOT TO BE CONSIDERED AS COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MISS UTILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE PERSONNEL PRIOR TO CONSTRUCTION TO AVOID POTENTIAL CONFLICTS SO THAT FIELD ADJUSTMENTS CAN BE MADE.
- ALL SIGNALS MUST HAVE A VERTICAL CLEARANCE OF 17 FEET (MIN.) FROM PROPOSED GRADE.



11-03-78



A/E GROUP, INC.
ENGINEERS & PLANNERS
181 E. Main Street
Westminster, Maryland 21157
A/E Job No. 93-253-002

REVISIONS	APPROVALS	MDOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION	
	CHIEF, SIGNAL DESIGN SECTION	LOG MI.	
	ASST. DISTRICT ENGINEER, TRAFFIC	DRAWN BY: M.J.G.	
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	DES. BY: R.W.P.	
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	CHK. BY: C.S.C. M. Ruck	
		DATE: 09-30-98	F.A.P. NO.
		SCALE: 1" = 20'	S.H.A. NO. BA9775372
		TS/STD. NO. 3774X1	
		SHEET NO. 122 OF 155	

TRAFFIC CONTROL STAGE IB

SS-19

MD RTE 146
(DULANEY VALLEY RD.)
AT SPUR TO EASTBOUND I-695
COUNTY: BALTIMORE